

AMENDMENT UNDER 37 C.F.R. 1.111

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REMARKS

Claims 7-11 are all the claims pending in the application.

Claims 7 and 8 have been editorially amended to use "comprises" language in place of "includes," to recite "an effective amount of" the drug being administered and to recite that the patient is "in need of said therapy."

New Claims 9 and 10 are supported in the specification at page 7, second full paragraph.

New Claim 11 is supported by original Claim 4.

Accordingly, no question of new matter arises and entry of the amendments is requested, respectfully.

A) Claim Rejections - 35 U.S.C. § 101

Claims 5-6 were rejected under 35 U.S.C. § 101 as being in a form that is not patentable.

Claims 5 -6 have been canceled, rendering this rejection moot.

B) Claim Rejections - 35 U.S.C. § 112, first paragraph

Claims 1-8 were rejected under 35 U.S.C. § 112, first paragraph as lacking enablement for treatment of overactive bladder. The Examiner noted that Applicants define overactive bladder as the "medical condition referring to the symptoms of frequency and urgency, with or without urge incontinence, when appearing in the absence of local pathological, neurological or metabolic factors that would account for these symptoms." However, the Examiner asserted that the only data in the specification is on rats with a bladder outlet obstruction. Thus, according to the Examiner, there is no data demonstrating treatment of overactive bladder that occurs without an apparent obstruction.

This rejection is traversed, respectfully, because the animal model used in the Example is a valid model for treatment of overactive bladder.

More particularly, in Test Example 2 (improvement of the irritating symptoms in the urinary bladder of animal model for disease), the urethra of female rats was partially obstructed to induce over activity of the bladder.

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In this respect, the Journal of Urology, 137, 1291-1294, 1987 (copy submitted herewith) discloses that a female rat model in which the urethra is partially obstructed showed unstable bladder contraction (cf. the first paragraph in the DISCUSSION section at the left column on page 1293 states that “[T]he results of the present study show that infravesical outflow obstruction in rats led to the development of an unstable urinary bladder in the majority of the animals.”).

Further, in the Journal of Urology, 170, 1427-1431, 2003 and in BJU International, Vol. 92, 131-136, 2003, (copies submitted herewith) a model of a female rat that has its urethra partially obstructed is used for evaluation of bladder instability.

Finally, the first paragraph in the left column on page 1 of Urology, 55(5A), 1-2, 2000, a copy of which was submitted with the IDS filed August 17, 2005, states that “detrusor instability” and “detrusor hyperreflexia” have the same meaning as “overactive bladder.”

Using this model, tamsulosin hydrochloride reduced the frequency of contraction before micturition, lowered the contraction pressure, and prolonged the micturition interval. Moreover, when tamsulosin hydrochloride was administered in combination with solifenacin succinate, the effect of reducing contraction frequency and the effect of lowering the contraction pressure were enhanced in a synergistic way.

Accordingly, the model used by Applicants is representative of “overactive bladder” as defined in the specification, and reconsideration and removal of this rejection are requested, respectfully.

C) Claim Rejections - 35 U.S.C. § 112, second paragraph

I) Claims 5-6 were rejected under 35 U.S.C. § 112, second paragraph for being indefinite as reciting a method of manufacture without reciting positive method steps.

Claims 5 and 6 have been canceled.

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II) Claims 3-4 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because it is not clear whether the compositions of claims 3 and 4 contain only the muscarinic receptor antagonist or both the tamsulosin and muscarinic receptor antagonist.

The rejected claims have been canceled, making this rejection moot.

III) Claims 7-8 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to recite that the patient is in need of therapy.

Claims 7-8 have been amended to include the recitation.

D) Claim Rejections - 35 U.S.C. § 102

Claims 1-2 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yoshinaga (EP 1088551; 2001).

The rejected claims have been canceled, making this rejection moot.

E) Claim Rejections - 35 U.S.C. § 103(a)

I) Claims 1-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshinaga (EP 1088551; 2001) in view of Takeuchi, et al. (EP 0801067; 1997).

The rejected claims have been canceled, making this rejection moot.

II) Claims 5-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sellers, et al. ("Potential Therapeutic Targets for Treatment of the Overactive Bladder," *World Journal of Urology*, 2001) in view of Caroon, et al. (U.S. Patent No. 6,319,920; 2001) and Remington's Pharmaceutical Sciences (1980; pages 420-425).

The Examiner asserted that Sellers et al teach that tamsulosin has activity in treating irritative symptoms in patients who do not have significant bladder outlet obstruction and further discloses that the alpha-1-adrenoreceptor antagonists relieve symptoms of urgency and frequency in women, which is suggestive that such agents may have actions that influence bladder function that are in addition to their indirect effects via the prostate. The Examiner pointed out that Sellers et al expressly state that the alpha-1-adrenoreceptor antagonists appear to have potential

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use in the treatment of overactive bladder. Thus the Examiner asserted that Sellers et al is reasonably suggestive that the use of an alpha-1-adrenoreceptor antagonist would have efficacy in treating overactive bladder and symptoms associated therewith. The Examiner further asserted that Sellers et al raise the reasonable expectation that such an agent would have success in treating such a condition.

The Examiner further asserted that the differences between Sellers et al and the present claimed subject matter is that Sellers et al fails to teach the concomitant use of a muscarinic receptor antagonist as an effective component for the treatment of overactive bladder or the use of therapeutically effective amounts of the ingredients. In order to compensate for this deficiency, the Examiner cited Caroon et al, asserting that Caroon et al. teach 2-arylethyl-(piperidin-4-yl)methyl amine derivatives as muscarinic receptor antagonists that are useful for the treatment of genitourinary disorders, such as overactive bladder and symptoms associated with that condition.

The Examiner concluded that one of ordinary skill in the art would readily use a muscarinic receptor antagonist in combination with the alpha-1-adrenoreceptor antagonist of Sellers et al to treat overactive bladder in order to achieve the presently claimed method. The Examiner stated that the motivation for the combination is that both types of compounds are shown to be useful for the treatment of overactive bladder and the associated urgency and frequency symptoms.

As to the optimum dosage, the Examiner asserted that this is readily determined by one of ordinary skill in the art.

Claims 5 and 6 have been canceled, rendering the rejection moot as to these claims.

With respect to Claims 7 and 8, Applicants traverse the rejection for the following reasons.

Applicants submit, respectfully, that the Examiner's reliance upon the teachings of Sellers et al is improper. Specifically, the Examiner appears to be applying Sellers et al in hindsight,

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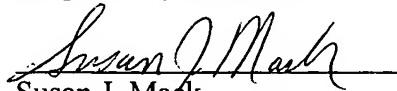
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because only by reference to the data in the present specification can the Examiner state that one of ordinary skill in the art would expect tamsulosin to be useful to treat overactive bladder. In this respect, the teachings of Sellers et al are not as straightforward as the Examiner asserts. Sellers et al expressly state that there are large species differences in alpha-1-adrenoreceptor subtype distribution and function and that observations in animal experiments must be interpreted with caution. Furthermore, Sellers et al point out that two specific alpha-1-adrenoreceptor antagonists, tamsulosin and Rec 15/2739, act entirely differently. Finally, Sellers et al state that if the alpha-1-adrenoreceptors do play a role in the actions of alpha-1-adrenoreceptor antagonist on lower urinary tract symptoms, the action may be at the level of the central nervous system or spinal cord rather than the bladder itself, thereby suggesting that any potential use would be for the treatment of overactive bladder associated with a pathological cause, which is not the condition treated in the present method claims. Accordingly, the citation to Sellers et al is based upon an improper hindsight reconstruction of the invention.

Furthermore, with respect to new Claims 9, 10 and 11, the data from Test Example 2 shown in Fig. 2 indicates that solfenacin does not inhibit the symptoms of overactive bladder. Yet as demonstrated in Figs. 2(A) and (B), a composition comprising tamsulosin and solfenacin exhibit unexpected synergy. Accordingly, the Examiner is requested to reconsider and remove this rejection.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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